

EICC COURSE DEVELOPMENT MODEL (CDM)

CATALOG COURSE NUMBER: MFG-117

COURSE TITLE: Cylindrical Grinding

Originating College: CCC MCC SCC

Effective Term/Year: Fall 2014

Initiating Faculty Member: Kenneth Darmody

Initiating Department Coordinator: Ben Kettering

Reason for submission: Check all that apply

New Course If yes, type of course:

A&S

To be considered for General Education? Yes No Category:

To be part of an A & S Concentration? Yes No Concentration:

CTE Program Title: Required Elective

General Education or Program Review Reactivation of an inactive course Making course inactive

Changing course; please explain:

Other; please explain:

Contact Hours/Distribution of Contact Hours

Lecture Hours

Lab Hours

Clinical Hours

Coop Hours

Hours per Week: 0.50 Hours per Week: 2.00 Hours per Week: 0 Hours per Week: 0

Number of Weeks: 16.50 Number of Weeks: 16.50 Number of Weeks: 16.50 Number of Weeks: 16.50

***Note: If offering a course for the full fall or spring semester, the number of weeks is 16.5*

Total Lecture Hrs: 9.90 Total Lab Hrs: 39.60 Total Clinical Hrs: 0 Total Coop Hrs: 0

Semester Hours Credit: 1.50 if variable credit, give range:

Allow repeat* for credit: Yes No

If yes, total course repeats allowed: If yes, total credits:

*Note that repeat for credit means a student can pass the course and then repeat it for additional credit. An internship course is an example of a course that could be set up as repeatable for additional credit

Course or courses this CDM replaces, if any:

CATALOG COURSE DESCRIPTION: This course will introduce the student to proper use and application of cylindrical grinders in manufacturing settings. Topics covered will include parallel grinding, and external and internal tapers methods.

RECOMMENDED ENTRY LEVEL SKILLS/KNOWLEDGE:

PRE-REQUISITE COURSES

CCN#	COURSE TITLE
MFG 115	Lathe Work

CO-REQUISITE COURSES

CCN#	COURSE TITLE

PUBLISHED MATERIAL(S) USED FOR CDM DEVELOPMENT: Kibbe Richard, John Neely, Warren White, and Roland Meyer. Machine Tool Practices. Upper Saddle River, Prentice Hall, 2010.

In general it is expected that source material will be dated within 5 years of this CDM date. If all materials/ textbooks cited above are older than this, please explain:

GENERAL COURSE GOALS

Upon successful completion of this course the student should be able to:

- Demonstrate the ability to perform parallel grinding.
- Demonstrate the ability to develop external and internal tapers.

TOPICAL OUTLINE

1. Parallel Grinding
2. External and Internal Tapers

COURSE OBJECTIVES

Upon successful completion of the course, a student should be able to:

1. Parallel Grinding
 - a. Identify standard operating procedures when working with cylindrical grinders.
 - b. Describe the proper set-up procedures to perform parallel grinding.
 - c. Identify the proper measurement procedures used in parallel grinding.
 - d. Perform parallel grinding.
2. External and Internal Tapers
 - a. Describe the proper set-up procedures to grind an external taper.
 - b. Describe the proper set-up procedures to grind an internal taper.
 - c. Identify the proper measurement procedures used in external and internal grinding.
 - d. Demonstrate how to grind an external and internal taper.

RECOMMENDED METHODS OF INSTRUCTION: *Check all appropriate methods of instruction to facilitate student learning of course objectives.*

- | | | |
|--|--|--|
| <input type="checkbox"/> Case Studies | | <input type="checkbox"/> Class Discussions |
| <input checked="" type="checkbox"/> Computer lab work | | <input type="checkbox"/> Computer-assisted tools |
| <input type="checkbox"/> Computer-assisted writing | | <input type="checkbox"/> Conducting experiments |
| <input checked="" type="checkbox"/> Demonstration or modeling | | <input type="checkbox"/> Electronic interaction |
| <input type="checkbox"/> Field observation | | <input type="checkbox"/> Field trips |
| <input type="checkbox"/> Guest speaker | | <input checked="" type="checkbox"/> Guided practice |
| <input type="checkbox"/> In-class writing or editing workshops | | <input type="checkbox"/> Journals |
| <input checked="" type="checkbox"/> Lecture | | <input type="checkbox"/> Library instruction and resources |
| <input checked="" type="checkbox"/> Model building | | <input type="checkbox"/> Peer review |
| <input type="checkbox"/> Readings | | <input type="checkbox"/> Role play |
| <input type="checkbox"/> Service learning | | <input type="checkbox"/> Simulation |
| <input checked="" type="checkbox"/> Student and instructor conferences | | <input type="checkbox"/> Student collaborative learning |
| <input type="checkbox"/> Student presentation | | <input checked="" type="checkbox"/> Student projects |
| <input type="checkbox"/> Tests or quizzes | | <input type="checkbox"/> Worksheets/surveys |
| <input type="checkbox"/> Writing assignments/exercises (graded or not) | | |
| <input type="checkbox"/> Other (please list specifics): | | |

RECOMMENDED EVALUATION METHODS: *Check all appropriate methods of evaluation to assess student achievement of course objectives.*

- | | | |
|--|--|---|
| <input type="checkbox"/> Class workshops | | <input type="checkbox"/> Classroom discussions/participation |
| <input type="checkbox"/> Collaborative work | | <input checked="" type="checkbox"/> Demonstration of skill(s) |
| <input checked="" type="checkbox"/> Individual conferences | | <input type="checkbox"/> Journals |
| <input checked="" type="checkbox"/> Laboratory reports | | <input type="checkbox"/> Oral presentations |
| <input type="checkbox"/> Portfolios | | <input type="checkbox"/> Pretest/Posttest |
| <input type="checkbox"/> Quizzes | | <input type="checkbox"/> Reading responses |

Student presentations

Tests

Other (please list specifics):

Student projects

Writing Assignments

ATTENDANCE: Policies on attendance will be formulated by the instructor and communicated to the students on the course syllabus.

ACADEMIC DISHONESTY: Policies on academic dishonesty can be found in the EICC student code of conduct published in the student handbook.

CDM CREATION/REVIEW/REVISION INFORMATION

Originally Written by: _____ Date: _____

Department Chair, Comments, & Date: _____

Does similar curriculum exist at other EICC Colleges? CCC MCC SCC No

If yes, Counterparts Consulted, College, Comments & Date: _____

CDM Review or Revision Date:

Faculty member(s) & College: _____

Does similar curriculum exist at other EICC Colleges? CCC MCC SCC No

Changes made to course which will require further review steps:

Making course inactive Credit hours Contact hours Course Description

25% or more of course objectives Other minor revisions or no revisions

Dean Review, Comments & Date: _____

If changes made require further review and approval:

College Curriculum Committee Sign-off & Date: _____

IC Review Subcommittee Sign-off & Date: _____

Instructional Council Approval: _____